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09/559,478	04/27/2000	Richard A. Simon	81020F-P	1867

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PATENT LEGAL STAFF
EASTMAN KODAK COMPANY
343 STATE STREET
ROCHESTER, NY 14650-2201

EXAMINER

SCHLAIFER, JONATHAN D

ART UNIT	PAPER NUMBER
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2178

DATE MAILED: 06/17/2004

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/559,478

Applicant(s)

SIMON, RICHARD A.

Examiner

Jonathan D. Schlaifer

Art Unit

2178

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 May 2004.
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-27 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☐ Claim(s) _____ is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☒ The drawing(s) filed on 27 April 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to communication: Request for Continued Examination filed on 5/6/2004.
2. Claims 1-2 and 4-27 are pending in the case. Claims 1, 16, and 22-27 are independent claims.
3. Claims 1-2, 5, 8, 10-12, 16, 22-25 and 27 have been amended.
4. All previous rejections over 35 U.S.C. 102 and 35 U.S.C. 103 have been withdrawn as necessitated by amendment.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 1 recites the limitation "said white space" in line 7. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 1-2, 5, 8, 12, 16, 22, 25 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over King et al. (USPN 5,956,737—filing date 9/9/1996), hereinafter King, further in view of Zhu et al. (AUPN 714,221—published 8/27/1998), hereinafter Zhu**

7. **Regarding independent claim 1**, King, in col. 3, lines 31-51, describes a method of organizing a plurality of images in a predetermined page format (King describes a method of finding a layout for a composition, which may consist of images only) utilizing a software program running on a computer (King's invention is meant to be based on a computer), grouping said plurality of images into a plurality of different page layouts (King uses a media tree of different layouts to arrive at the eventual layout, which exist as intermediate layouts), analyzing each of said different page layouts in accordance with respect to the amount of white space in each of said plurality of different page layouts (in col. 3, lines 19-21, King's tree analysis proceeds until primitives are reached; in col. 41 lines 5-10, a white space scale factor is clearly a factor in determining how layouts are arrived at), and selecting the page layout based on said the amount of white space determined for each of said plurality of plurality of different page layouts (since the white space scale factor in analyzing the layouts, it is presumably applied to the media tree). King fails to explicitly disclose that each of the page layouts is capable of being printed, but because they are compositions on a computer and it was notoriously well known in the art at the time of the invention that compositions on a computer were printable in order to have transportable hardcopy, it would have been obvious to one of ordinary skill in the art at the time of the invention to have the layouts be printable in order to have transportable hardcopy. Furthermore, King fails to explicitly disclose spatially balancing said white space between said plurality of digital images and selecting the page layout based on the spatial balance of said white space between said plurality of digital image. However, Zhu discloses on page 4, lines 20-30 of the patent that white

space is used to distribute items in a layout because it produces a more attractive layout.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have used white space balancing in conjunction with the invention of King in order to produce a more attractive layout.

8. **Regarding dependent claim 2**, King in col. 49, lines 48-58, describes the process by which media content is fit to the calculated layout. This constitutes a method further comprising placing said plurality of images in said selected page layout. These images would have been digital images because King's method is performed on a computer.
9. **Regarding dependent claim 5**, King describes in col. 41, lines 1-2 how scale factors may apply to particular design components, necessarily implying a method further comprising the step of further scaling the images of selected page layout by different amounts. These images would have been digital images because King's method is performed on a computer.
10. **Regarding dependent claim 8**, King describes in the Abstract that there are "scale factors" which inherently involves a method wherein said placing of said plurality of images in said different page layouts comprises scaling all of said images such that they fit within said page format.
11. **Regarding dependent claim 12**, as noted in the rejection of claim 8, King describes scaling the images to fit onto the page. Since if the plurality of images have a total area greater than the page area, they must be reduced in size, this would logically imply reducing the size of the plurality of digital images.

12. **Regarding independent claim 16**, it is a system that performs the method of claim 1 and is rejected under similar rationale.
13. **Regarding independent claim 22**, it is a computer software product encoded in a software readable medium that performs the method of claim 1 and is rejected under similar rationale.
14. **Regarding independent claim 25**, King, in col. 3, lines 31-51, describes a method of organizing a plurality of digital images in a predetermined page format (King describes a method of finding a layout for a composition, which may consist of images only) utilizing the software program running on a computer (King's invention describes a computer product running on a computer, grouping said plurality of images into a plurality of different page layouts (King uses a media tree of different layouts to arrive at the eventual layout), analyzing each of said different page layouts in accordance with respect to the amount of white space in each of said plurality of different page layouts (in col. 3, lines 19-21, King's tree analysis proceeds until primitives are reached; in col. 41 lines 5-10, a white space scale factor is clearly a factor in determining how layouts are arrived at), and selecting the page layout based on said the amount of white space determined for each of said plurality of plurality of different page layouts (since the white space scale factor in analyzing the layouts, it is presumably applied to the media tree). King further describes an option of choosing a tentative layout in col. 43, lines 50-65, which implies selecting at least one image (which is digital, as King to be placed in a predetermined image location and inherently involves identifying said at least one image and the location of said at least one predetermined image (presumably digital, as King is

a computer program) location. King fails to explicitly disclose that each of the page layouts is capable of being printed, but because they are compositions on a computer and it was notoriously well known in the art at the time of the invention that compositions on a computer were printable in order to have transportable hardcopy, it would have been obvious to one of ordinary skill in the art at the time of the invention to have the layouts be printable in order to have transportable hardcopy. Furthermore, King fails to explicitly disclose spatially balancing said white space between said plurality of digital images and selecting the page layout based on the spatial balance of said white space between said plurality of digital image. However, Zhu discloses on page 4, lines 20-30 of the patent that white space is used to distribute items in a layout because it produces a more attractive layout. It would have been obvious to one of ordinary skill in the art at the time of the invention to have used white space balancing in conjunction with the invention of King in order to produce a more attractive layout.

15. **Regarding independent claim 27**, it is a computer software product encoded in a software readable medium that performs the method of claim 25 and is rejected under similar rationale.
16. **Claims 4, 9-10, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over King, further in view of Zhu, further in view of Ross et al. (USPN 6,026,417—filing date 5/2/1997), hereinafter Ross**
17. **Regarding dependent claim 4**, King and Zhu fail to disclose a method wherein analyzing said different page layouts comprises scoring each of said different page layouts. However, Ross, in col. 28, lines 42-65, describes how a Page Manager

calculates a closeness score as part of preparing page layouts in order to aid the decision process, which constitutes a situation wherein analyzing said different page layouts comprises scoring each of said different page layouts. It would have been obvious to one of ordinary skill in the art at the time of the invention to use Ross's scoring to aid the decision process of King and Zhu's inventions.

18. **Regarding dependent claim 9**, King discloses in the Abstract the use of a recursive design tree to compare various layouts. Since recursion is internally represented by iteration, this process necessarily involves analyzing of said different page layouts that comprises a iteration of different page layouts and selecting the best page layout until the criteria are best met. However, King fails to disclose a situation where little or no further improvement in scoring is obtained, because King's process does not involve scoring. However, Ross teaches scoring, as described above. It would have been obvious to one of ordinary skill in the art at the time of the invention to add Ross's scoring to King's recursive decision process (whose underlying nature is iterative) and Zhu's invention in order to aid in the decision process.

19. **Regarding dependent claim 10**, King states in col. 40, lines 52-54, that scale factors may be used to adjust components' fit in the layout process, which constitutes a method further comprising the step of scaling individual images of the page layout obtained after said iteration.

20. **Regarding independent claim 24**, King discloses grouping said plurality of digital images utilizing a software program running on a computer into a plurality of different page layouts (King uses a media tree of different layouts to arrive at the eventual layout),

analyzing each of said different page layouts in accordance with a predetermined criteria (in col. 3, lines 19-21, King's tree analysis proceeds until primitives are reached), and selecting the page layout based on said predetermined criteria because that is an inherent part of processing the images according to the media tree King uses. King also discloses analyzing each of said different page layouts in accordance with respect to the amount of white space in each of said plurality of different page layouts (in col. 3, lines 19-21, King's tree analysis proceeds until primitives are reached; in col. 41 lines 5-10, a white space scale factor is clearly a factor in determining how layouts are arrived at), and selecting the page layout based on said the amount of white space determined for each of said plurality of plurality of different page layouts (since the white space scale factor in analyzing the layouts, it is presumably applied to the media tree). King fails to disclose a method a method of organizing a plurality of images in a predetermined page format including an image void area comprising the steps of: identifying an area to be void of images and including the void area of images in the plurality of page layouts. However, Ross discloses in col. 10, lines 45-47, that objects may be empty in order to allow for proper positioning of document contents. It would have been obvious to one of ordinary skill in the art at the time of the invention to use Ross's empty objects in order to allow for proper positioning of document contents, which would necessarily imply a method of organizing a plurality of images in a predetermined page format including an image void area comprising the steps of: identifying an area to be void of images and including the area void of images in the plurality of page layouts. King fails to explicitly disclose that each of the page layouts is capable of being printed, but because they are compositions on

a computer and it was notoriously well known in the art at the time of the invention that compositions on a computer were printable in order to have transportable hardcopy, it would have been obvious to one of ordinary skill in the art at the time of the invention to have the layouts be printable in order to have transportable hardcopy. Furthermore, King fails to explicitly disclose spatially balancing said white space between said plurality of digital images and selecting the page layout based on the spatial balance of said white space between said plurality of digital image. However, Zhu discloses on page 4, lines 20-30 of the patent that white space is used to distribute items in a layout because it produces a more attractive layout. It would have been obvious to one of ordinary skill in the art at the time of the invention to have used white space balancing in conjunction with the invention of King in order to produce a more attractive layout.

21. **Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over King, further in view of Zhu, further in view of Nakatake et al., from the applicant's previously disclosed prior art, hereinafter Nakatake**
22. **Regarding dependent claim 6,** King and Zhu fail to disclose a method wherein the amount of white space is minimized by using stochastic algorithms. However, Nakatake's teachings are relevant to an analogous situation, in which chips are arranged on an integrated circuit. In this situation, on pages 487-488 of the paper, Nakatake refers to using simulated annealing, which is a type of stochastic algorithm, because it packs with good area efficiency and therefore minimizes white space. It would have been obvious to one of ordinary skill in the art at the time of the invention to use Nakatake's

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method of simulated annealing to pack with good area efficiency, thereby resulting in a method wherein the amount of white space is minimized by using stochastic algorithms.

- 23. Claims 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over King, further in view of Zhu, further in view of Fukui et al. (USPN 5,742,837—filing date 8/26/1994), hereinafter Fukui**
- 24. Regarding dependent claim 7, King and Zhu fail to disclose a method wherein said different page layouts include placing images in said different page layouts in a non-overlapping pattern. However, Fukui, in col. 7, lines 59-60, lists lack of overlapping as a criterion because it allows for an aesthetically pleasing layout. It would have been obvious to one of ordinary skill in the art at the time of the invention to use Fukui's criterion of avoiding overlap in order to arrive at a more aesthetically pleasing layout, thereby resulting in a method wherein said predetermined criteria include placing images in said different page layouts in a non-overlapping pattern.**
- 25. Claims 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over King, further in view of Zhu, further in view of Ross, further in view of Bottomly (USPN 5,900,002—filing date 1/9/1995)**
- 26. Regarding dependent claim 11, King, Zhu, and Ross fail to disclose a method further comprising the step of rotating said images a predetermined amount. However, Bottomly, in col. 4, lines 21-31, discloses a process by which regions of the page are rotated 180 degrees to aid in orienting. It would have been obvious to one of ordinary skill in the art at the time of the invention to use Bottomly's method of rotating 180 degrees to aid in orienting, and this would have constituted a method further comprising**

the step of rotating said images a predetermined amount. This is in accordance with the limitations of the claim, given that King's invention deals with digital images.

27. Claims 13 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over King, further in view of Zhu, further in view of Burns (USPN 6,014,137—filing date 2/27/1997)

28. Regarding dependent claim 13, King and Zhu fails to disclose a method further comprising the step of positioning said images in said selected page layout so as to provide a desired border on said page. However, Burns in col. 3, line 59 refers to the use of window borders in a kiosk authoring system that would require image arrangement in order to present the user with an aesthetically pleasing layout. It would have been obvious to one of ordinary skill in the art at the time of the invention to use borders in the method that Burns teaches in order to present the user with an aesthetically pleasing layout. Such a method would constitute a method further comprising the step of positioning said images in said selected page layout so as to provide a desired border on said page.

29. Regarding dependent claim 21, King and Zhu fails to disclose a system wherein said computer is accessed by a retail kiosk. However, Burns, in col. 1, lines 11-37 reveals that kiosks are a popular method of providing information because they are generally accessible to the public. It would have been obvious to one of ordinary skill in the art at the time of the invention to have said computer be accessed by a retail kiosk in the manner of Burns, because then it would be generally accessible to the public.

30. Claims 14-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over King,

further in view of Zhu, further in view of Burns, further in view of Archibald

(USPN 5,459,826—filing date 5/25/1990)

31. Regarding dependent claim 14, King, Zhu, and Burns fail to disclose a method

according to claim 12 wherein said white space is determined vertically between adjacent images in said page layouts. However, Archibald, in col. 3, lines 12-19, discloses the use of a vertical-horizontal grid pattern to organize the components for the layout efficiently, and this constitutes determining the white space vertically (as well as horizontally). It would have been obvious to one of ordinary skill in the art at the time of the invention to follow Archibald's teachings and have said white space be determined vertically between adjacent images in said page layouts in order to organize the components for the layout efficiently.

32. Regarding dependent claim 15, King, Zhu, and Burns fail to disclose a method

according to claim 12 wherein said white space is determined horizontally between adjacent images in said page layouts. However, Archibald, in col. 3, lines 12-19, discloses the use of a vertical-horizontal grid pattern to organize the components for the layout efficiently, and this constitutes determining the white space horizontally (as well as vertically). It would have been obvious to one of ordinary skill in the art at the time of the invention to follow Archibald's teachings and have said white space be determined horizontally between adjacent images in said page layouts in order to organize the components for the layout efficiently.

33. Claims 17-20 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over King, further in view of Zhu.

34. Regarding dependent claim 17, King and Zhu fail to disclose a system wherein said computer can be accessed remotely over a communication network. However, it was notoriously well known in the art at the time of the invention that computers may be accessed remotely over communications networks to provide access to their resources when their users are at a remote location. It would have been obvious to one of ordinary skill in the art at the time of the invention to build a system wherein said computer can be accessed remotely over a communication network in order to provide access to their resources when their users are at a remote location.

35. Regarding dependent claim 18, King and Zhu fail to disclose a system wherein said computer is accessed by a second computer. However, it was notoriously well known in the art at the time of the invention that in a network, computers are accessed by other computers in the network in order to make use of their capabilities. It would have been obvious to one of ordinary skill in the art at the time of the invention to build a system wherein said computers is accessed by a second computer so that the second computer could make use of the first computer's capabilities.

36. Regarding dependent claim 19, King and Zhu fail to disclose a system wherein said software program is run on said first computer. However, it was notoriously well known in the art at the time of the invention that in an invention where a piece of software is designed for a function, it should be run on appropriate hardware in order to be functional. It would have been obvious to one of ordinary skill in the art at the time of

the invention to build a system wherein said software program is run on said first computer so that the software may be functional.

37. **Regarding dependent claim 20**, King and Zhu fail to disclose a system wherein the second computer is the personal computer of a customer. However, it was notoriously well known in the art at the time of the invention that customers often use their personal computers to access photo services because this is a convenient means of access for him or her. It would have been obvious to one of ordinary skill in the art at the time of the invention to build a system wherein the second computer is the personal computer of a customer because this is a convenient means of access for him or her.
38. **Regarding dependent claim 26**, King and Zhu fails to disclose a method comprising the step of permitting a user to request another page layout. However, it was notoriously well known in the art at the time of the invention that computer software products that perform a task often allow the user the option of performing the task again for the user's convenience. It would have been obvious to one of ordinary skill in the art at the time of the invention to allow the user to perform the page layout again for the user's convenience.
39. **Claims 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over King, further in view of Zhu, further in view of Kadono (USPN 6,334,187 B1—filing date 6/30/1998).**
40. **Regarding independent claim 23**, it is a claim that is identical to claim 1, except that it has two additional limitations. First, selecting a number of said images for placement on said predetermined format, but this is inherently part of the preparation for using King's

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invention, which has already been used to reject claim 1, and hence claim 23 may be rejected in a similar manner. The other limitation is normalizing said plurality of digital images that are to be placed on each of said different page layouts. However, in col. 24, lines 35-55 of Kadono, Kadono discloses that normalization may be used to incorporate secret pattern information into objects. It would have been obvious to one of ordinary skill in the art at the time of the invention to use normalization in conjunction with the objects to be laid out in order to incorporate secret pattern information into the objects.

Response to Amendment

41. Applicant's arguments filed 11/17/2003 have been carefully and fully considered but are not persuasive.
42. The Examiner acknowledges that the previously cited references may perhaps be unable to meet all of the limitations contained in the claims as presented in this Request for Continued Examination. However, the Examiner believes that the introduction of the new art (i.e., Zhu and Kadono) used to reject the claims is sufficient to meet the objections that the Applicant raises to the Examiner's objections. For example, Zhu's layout technology is specifically oriented toward providing aesthetically pleasing layouts. It specifically sets forth the spatial balancing feature brought forth in the current communication. Furthermore, it would have been obvious to use normalization as in Kadono to reject claim 23.
43. Hence, the Examiner respectfully maintains that the Applicant's arguments are invalid.

Conclusion


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan D. Schlaifer whose telephone number is 703-305-9777. The examiner can normally be reached on 8:30-5:00, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon can be reached on 703-308-5186. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JS


STEPHEN S. HONG
PRIMARY EXAMINER